Airport CDM München

# AIRPORT COLLABORATIVE DECISION MAKING

## AIRPORT CDM AT MUNICH AIRPORT

## Flight Crew Briefing
## English

# Airport CDM München

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## 1. General

This document describes the airport collaborative decision making (CDM) process at Munich Airport. It is to be understood and used as information material for flight crews.

Together with the publications about Airport CDM (AIP Germany, AIP AD2.EDDM and the airport user regulations FBO), this document is to ensure that Airport CDM at Munich Airport is handled in a optimum way in the interest of all partners. A detailed description of the process is also available as a "brief description".

This document will enter into effect on 19.05.2014 and supersedes any and all previous versions.

### 1.1. Definition

Airport CDM facilitates the optimal handling of turn-round processes in operations at Munich airport. It covers the period of time between the estimated off-block time (EOBT) minus 3h and take-off and is a coherent process from flight planning (ATC flight plan) to landing and the subsequent turn-round process on the ground before the next take-off.


Airport CDM at Munich Airport is based on the European standard for Airport CDM, the common specification for Airport CDM (“Community Specification”) and the initiative "Deutsche Harmonisierung von Airport CDM" (German harmonisation of Airport CDM).

## 2. Target Off-Block Time (TOBT)

The TOBT is the reference time used for all ground handling processes except for aircraft push-back and de-icing. This time is used for coordination, as it is the best available time for that purpose.

TOBT is the prediction of “aircraft ready”.

### 2.1. Automatic TOBT

The TOBT for the linked outbound flight will be generated automatically 12 minutes prior landing, if the TOBT has not been entered manually before. The earliest time for a manual TOBT input is 90 min. before EOBT.

If the TOBT for a flight has not been generated automatically, it must be entered by the person responsible for the TOBT as described below.

The TOBT for flights which are not subject to a direct turn-round and which do not park on their outgoing position will be generated automatically at "off-block from the direct preceding position" or based on the EOBT.

### 2.2. Person responsible for TOBT

Airlines have to ensure:

- the nomination of one person responsible for the TOBT
- the communication with the relevant airline OCC (ATC flight plan/person responsible for the EOBT) and
- the coordination of internal working procedures

The person responsible for the TOBT, the handling agent, the airline (for flights without handling agents) or the pilot-in-command/flight crew (for general aviation flights without handling agent) is responsible for TOBT correctness and adherence.

A wrong TOBT leads to disadvantages for further sequencing and/or CTOT allocation of regulated flights. Therefore, the TOBT has to be adjusted as early as possible.

### 2.3. TOBT input and adjustment

The following facts have to be taken into account for the input and/or adjustment of the TOBT:

- a TOBT can be adjusted as often as necessary until TSAT has been issued
- after TSAT has been issued, a TOBT can only be corrected three times
- the forth TOBT change can result in disadvantages for sequencing
- the entered TOBT has to be at least 5 minutes later than actual time
- new and old TOBT must differ by at least 3 minutes
- the entered TOBT is not allowed to be earlier than 10 minutes before EOBT

As the TOBT is also the basis for further airport processes, adjustments of the TOBT (also if the process is completed more than three minutes earlier) are to be entered by the person responsible for the TOBT.

### 2.4. TOBT deletion

The TOBT has to be deleted, if the TOBT cannot be met and the new TOBT is still unknown (e.g. technical problems with the aircraft).

A flight without TOBT will not be sequenced and is therefore not allowed to depart.

If the TOBT is deleted, the TSAT is automatically deleted as well.

If a new TOBT is known and the process shall continue, the person responsible for the TOBT has to enter a new TOBT.

### 2.5. TOBT reporting channels

The TOBT is reported and/or adjusted by one of the following ways:

- Sequence Manager
- internal system of the aircraft operator/ handling agent
- Common Situational Awareness (CSA) Tool
- via telephone at the FMG traffic operations centre (+49-(0)89-975-21135)

## 3. Target Start Up Approval Time (TSAT)

The TSAT is the target time for start-up approval according to the A-CDM procedure. The pre-departure sequence is based on the flights with a calculated TSAT. The TSAT is published 40 minutes prior to the valid TOBT. The TSAT is transmitted via the same communication channels as the TOBT. As a rule, TSAT and any changes to the TSAT are transmitted to the person responsible for the TOBT, who then forwards them to the flight crew/pilots. When the Datalink procedure (DCL) is used for clearances, TSAT will additionally be transmitted directly into the cockpit.

### 3.1. TOBT and TSAT handling in extreme situations

If TOBT and TSAT deviate from each other by more than 90 minutes, the ground handling process has to be completed before TOBT. This does not apply to passenger boarding. Passenger boarding has to be completed TSAT -60 minutes at the latest.

## 4. Start-Up and Push-Back

Start-up (ASAT) and push-back (AOBT) clearances are issued taking into account the TOBT and TSAT. The following rules shall apply:

Start-up (ASAT) and push-back (AOBT) clearances are issued taking into account the TOBT and TSAT. The following rules shall apply:

- The aircraft has to be ready for start-up and/or on-stand de-icing at TOBT.
- In principle the timeframe for start-up approval and en-route clearance is TSAT +/- 5 minutes
    - The pilot should request start-up approval and en-route clearance TSAT +/- 5 minutes.
    - Clearance Delivery issues the start-up approval and en-route clearance depending on TSAT and the current traffic situation.
- The push-back/taxi clearance has to be requested not later than 5 minutes after the start-up approval has been issued.
- In case of delays Clearance Delivery has to be informed. Otherwise the TOBT will be deleted and has to be re-entered.
- If there are any significant changes to the TSAT, the pilot will be informed accordingly by the airline/handling agent. In the case of general aviation flights, this task will be performed by Clearance Delivery.

### 4.1. Datalink Clearance - DCL

The published procedures and the time parameters published in the AIP AD 2 EDDM 1-20 continue to apply to data link departure clearances (DCL).

The TSAT is transmitted via CLD (departure clearance uplink message – issue of the start-up approval and en-route clearance by Clearance Delivery).

**“Start Up approved TSAT <hh:mm>“**

The push-back/taxi clearance has to be requested at TSAT +/-5 minutes.

Example:

| DCL with Start up approval and En route clearance | DCL only with En route clearance |
|---|---|
| QU QXSXMXS<br>.MUCDFYA 110454<br>CLD<br>AN D-AHFX/MA 767A<br>- /MUCDFYA.DC1/CLD 0454 070311 EDDM PDC 001<br>HLF111 CLRD TO LPFR OFF 26L VIA AMPEG1S SQUAWK 3553 ADT MDI NEXT FREQ 121.775 AT IS D<br>**STARTUP APPROVED TSAT 05:00** | QU QXSXMXS<br>.MUCDFYA 110818<br>CLD<br>AN D-ACPQ/MA 891A<br>- /MUCDFYA.DC1/CLD 0818 070311 EDDM PDC 001<br>DLH06M CLRD TO LFBO OFF 08R VIA AMPEG1E SQUAWK 3545 ADT MDI NEXT FREQ 121.725 AT IS J<br>**STANDBY ON 121.725 FOR STARTUP TSAT 08:30** |

### 4.2. Swapping flights within the sequence

After the TSAT has been calculated, the sequence of flights can be changed via the CSA-Tool within the area of responsibility of the person responsible for the TOBT. As there are special restrictions in connection with swapping flights, the possible flights to be swapped will be indicated in the CSA-Tool. If one of the flights has a TSAT which is less than 15 min. in the future, the swap has to be confirmed and executed by DFS Tower.

### 4.3. De-icing

#### 4.3.1. De-icing on position

In case of apron de-icing the aircraft has to be ready for de-icing at TOBT. It must have been de-iced at TSAT.

#### 4.3.2. Remote de-icing

Aircraft de-icing times don't have to be considered for the calculation of the TOBT, because de-icing request, estimated de-icing time and de-icing capacity will be included in the calculation of the TSAT. Therefore de-icing should be requested as early as possible.

#### 4.3.3. Fanblade de-icing

Fanblade de-icing is an event that takes place before the beginning of the CDM process and is therefore not taken into account for the calculation. The TOBT must be after the end of fanblade de-icing.

### 4.4. Coordination with NMOC

The general CFMU procedures remain the same. In addition during the turn-round process local Target Take-Off Times (TTOT) will be automatically calculated and transmitted to NMOC. In case of longer delays, which are under the responsibility of the airline, the standard CTOT allocation will apply, but will be fine-tuned by the local TTOT. Generally NMOC will take the local TTOT into consideration for CTOT calculation and try to adjust it accordingly.

If an adjustment/extension is not sufficient, DFS (Clearance Delivery) offers to coordinate a new CTOT in consultation with the pilot in command/flight crew.

### 4.5. Remote Holding

Remote holding can be requested by the CSA-Tool, if the TOBT is at least 30 minutes before the CTOT.

## 5. Aeronautical Information Publication (AIP)

The Airport CDM procedure at Munich Airport is published in AIP Germany, Volume II, AD2-EDDM, section AD 2.20 "Local Traffic Regulations".

## 6. Persons responsible for the process/contact persons

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